

**Abstract**

5 A method of processing an optical element having a spherical surface comprises providing a first interferometer apparatus having an interferometer optics with an aspherical lens for transforming a beam of a first spherical beam type into a beam of a second spherical beam type, arranging the optical  
10 element in a beam path of an incident beam provided by the interferometer optics, interferometrically taking a first measurement of the optical element, and determining first deviations of the spherical surface. The method further comprises arranging the aspherical lens in a beam path of a  
15 measuring beam provided by a beam source of a second interferometer apparatus, wherein the measuring beam is one of the first spherical type and the second spherical type, interferometrically taking a second measurement using the measuring beam, and determining second deviations of an  
20 aspherical surface of the aspherical lens.